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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,696	05/25/2007	Gerhard Frey	095309.58164US	2849
23911 7590 07/21/2010 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300				
EXAMINER				
AMIN, BHAVESH V				
ART UNIT		PAPER NUMBER		
3664				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/590,696

**Applicant(s)**

FREY ET AL.

**Examiner**

BHAVESH V. AMIN

**Art Unit**

3664

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 14 is objected to because of the following informalities: The claim is identical to claim 12 and hence needs to be removed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 11 where applicant claims, "a second central control device operatively connected to at least one of the first control device and the at least one control line, and operatively connected redundantly to the first control device;" it is unclear as to if the second control device is connected to the first control device or some other device. Applicant also in claim 11 uses the terms "two rear control lines arranged to actuate the brake units associated with the rear axle, of which at least the first control line is operatively connected to the second control device;" and hence it is not clear as to if this is one control line or two separate control lines? Where applicant claims "a wheel modulator for each wheel configured to determine an actuating signal from the associated wheel braking command for a brake actuator of the associated brake unit, the axle modulators are arranged on or near to the respectively associated

axle, wherein: the two front control lines are operatively connected to the front axle modulator associated with the front axle and the two rear control lines are operatively connected to the rear axle modulator associated with the rear axle, at least in the case of one of the axles, the associated axle modulator is operatively connected via two actuating lines to both the wheel modulators of both the brake units of the one axle, the two axle control lines are each operatively connected to only one of the wheel modulators, the one wheel modulator is operatively connected to the other wheel modulator and is operable to transmit the signals, supplied to the one wheel modulator via the one axle control line, to the other wheel modulator." This limitation is not clear in as much as it can not be ascertained as to which control line is connected to which axle and which controller controls which brakes as there is no definite language to enable one to figure this out. Applicant does not positively recite if the connection apply to both axles or just one axle, "at least in the case of one of the axles," this does not allow one to determine what the converse case would be? Appropriate correction is required. Due to the uncertainty of the claims the claims will be examined as best understood.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 11 & 17 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Weiberle US PG Pub 2004/0015281 A1.

Regarding claims 11 & 17 where it is disclosed by Weiberle to have a system which consists of multiple modules for braking control and is read upon by applicant's claims as follows:

"A brake control system for a vehicle having at least one front axle with at least one left-hand front wheel and at least one right-hand front wheel; at least one rear axle with at least one left-hand rear wheel and at least one right-hand rear wheel; a service brake for braking the wheels of the vehicle, wherein the service brake (8) is provided with [Figure 1]: (a) at least one electronically actuatable front left-hand brake unit for actuating braking of the at least one left-hand front wheel [paragraph 13], (b) at least one electronically actuatable front right-hand brake unit for actuating braking of the at least one right-hand front wheel [paragraph 13], (c) at least one electronically actuatable rear left-hand brake unit for actuating braking of the at least one left-hand rear wheel [paragraph 13], and (d) at least one electronically actuatable rear right-hand brake unit for actuating braking of the at least one right-hand rear wheel [paragraph 13]; a first central control device operatively connected via at least one control line to the brake units so as to allow actuation of the brake units independently of one another [paragraph 17 & 18]; a second central control device operatively connected to at least one of the first control device and the at least one control line, and operatively connected redundantly to the first control device [paragraph 13 & 20]; two front control

lines arranged to actuate the brake units associated with the front axle, of which at least the first control line is connected to the first control device [paragraph 18]; two rear control lines arranged to actuate the brake units associated with the rear axle, of which at least the first control line is operatively connected to the second control device; a brake modulator arranged to determine an axle braking command for each axle from preset values relating to vehicle movement dynamics [paragraph 18-19]; an axle modulator for at least one axle configured to determine a wheel braking command for each wheel from the associated axle braking command [paragraph 18-19]; a wheel modulator for each wheel configured to determine an actuating signal from the associated wheel braking command for a brake actuator of the associated brake unit, the axle modulators are arranged on or near to the respectively associated axle [paragraphs 13-22], wherein: the two front control lines are operatively connected to the front axle modulator associated with the front axle and the two rear control lines are operatively connected to the rear axle modulator associated with the rear axle, at least in the case of one of the axles, the associated axle modulator is operatively connected via two actuating lines to both the wheel modulators of both the brake units of the one axle, the two axle control lines are each operatively connected to only one of the wheel modulators, the one wheel modulator is operatively connected to the other wheel modulator and is operable to transmit the signals, supplied to the one wheel modulator via the one axle control line, to the other wheel modulator [paragraphs 13-22 and Fig 1]."

If applicant finds that it is not inherent that the system is configured the same as theirs, even though it has all of the components as applicant's invention, it has been held by the office that rearranging a known invention which would still yield predictable results with out undue experimentation using well known devices as disclosed by Weiberle would be capable of one of ordinary skill in the art of braking systems (please MPEP 2143).

Regarding claims 12 & 14 where it is disclosed by Weiberle in paragraph 22 to have, "at least one dynamic system is provided for vehicle stabilization and has wheel-specific components arranged in the axle modulators as well as at least one of axle-specific and vehicle-specific components arranged in the brake modulator."

Regarding claim 13 & 15-16 where in paragraphs 18-22 of Weiberle disclosure it is described by them to have multiple modules on each wheel and axle for control. This is read upon by applicant's claim to, "one of the following is provided: (a) the wheel modulators are integrated into the associated brake unit, (b) the wheel modulators associated with the wheels of the same axle are each integrated into the axle modulator associated with this axle, and (c) the wheel modulators are integrated into the brake modulator." However if it is not found that the modules are combined into one module then it would have been obvious to one of ordinary skill in the art at the time of invention to modify Weiberle to easily combine two similar devices which allow for the device to produce a predictable result of brake control.

Regarding claims 18-22 where it is disclosed by Weiberle to have a system which contains all the components of applicant's invention and hence would easily be

capable of carrying out applicant's invention. However if applicant finds that it is not inherent that the system can be connected the same way then it would have been obvious to one of ordinary skill in the art the time of invention to modify Weiberle system by changing the connections and thus have a system which has the same out put as the original system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BHAVESH V. AMIN whose telephone number is (571)270-3255. The examiner can normally be reached on M - T, Friday off, 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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/B. V. A./

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664